CLAIMS

I Claim:

1   1.   A system for determining a connection pattern of data ports which

2   are interconnected by multiconductor cables, said data ports each having a

3   socket, and said multiconductor cables each having a jack at each end of

4   the cable which mates with said socket, said system comprising:

5   a socket contact positioned adjacent to said socket,

6   an external contact provided for each of the jacks, said external

7   contact making electrical connection with said socket contact when the jack

8   is mated with said socket, wherein a conductor connects the external

9   contacts at the two ends of the multiconductor cable;

10   at least one output signal transducer electrically coupled to at least

11   one socket contact, said output driver being operative to send a signal to

12   said socket contact;

13   at least one input signal transducer electrically coupled to at least

14   one socket contact for receiving said signal sent by said output signal

15   transducer;

16   a micro-processor coupled to said output signal transducer and said

17   input signal transducer for controlling said signal sent by said output signal

18   trasducer and for detecting signals received by said input signal

19   transducer, said micro-processor interpreting said signals to determine the

20   connection pattern of said data ports; and

21   an output indicator coupled to said micro-processor for indicating

22   the connection pattern of said data ports as determined by said micro-

23   processor.

1   2.   The system. as recited in claim 1 wherein said micro-controller

2   determines the connection pattern of said data ports by a process of

3   sending a signal to a socket contact and determining which of the input

4   signal transducers have received the signal, and repeating the process for

5   every socket contact.

1   3.   The system as recited in claim 1 wherein said multiconductor cable

2   is a standardized cable.

1 _ 4.   The system as recited in claim 3 wherein said multiconductor cable

2   is an RJ45 cable.

1   5.   The system as recited in claim 3 wherein said multiconductor cable

2   is an RJ11 cable.

1   6.   A system for determining a connection pattern of data ports which

2   are interconnected by standardized multiconductor cables, said data ports

3   each having a standardized socket, and said multiconductor cables each

4   having a standardized jack at each end of the cable which mates with said

5   socket, said system comprising:

6   a socket contact positioned adjacent to said standardized socket,

7   an external contact provided for each of the standardized jacks, said

8   external contact making electrical connection with said socket contact

9   when the jack is mated with said socket, wherein a conductor connects the

10   external contacts at the two ends of the standardized multiconductor cable;

11   an output signal transducer uniquely coupled to each of said socket

12   contacts, said output driver being operative to send a signal to said socket

13   contacts;

14   an input signal transducer uniquely coupled to at least each of said

15   socket contacts for receiving said signal sent by said output signal

16   transducer;

17   a micro-processor coupled to said output signal transducer and said

18   input signal transducer for controlling said signal sent by said output signal

19   trasducer and for detecting signals received by said input signal

20   transducer, said micro-processor interpreting said signals to determine the

21   connection pattern of said data ports; and

22   an output indicator coupled to said micro-processor for indicating

23   the connection pattern of said data ports as determined by said micro-

24   processor.

1   7.   The system as recited in claim 6 wherein said micro-controller

2   determines the connection pattern of said data ports by a process of

3   sending a signal to a socket contact and determining which of the input

4   signal transducers have received the signal, and repeating said process

5   for every socket contact.